


**Alabama Early Screening
Improvement Training**
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Tuscaloosa, Alabama

American Academy of Pediatrics 
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Alabama Chapter

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Video Communications and Distance Learning Division

**The Model for Improvement:
QI and PDSA**

Faculty

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Commercial Interests Disclosure

- **Hector Gutierrez, MD**
 - Does not intend to discuss any commercial products or services
 - Does not intend to discuss any non-FDA approved uses of products/providers of service
 - No significant financial relationship

Why A Model? What Purpose?

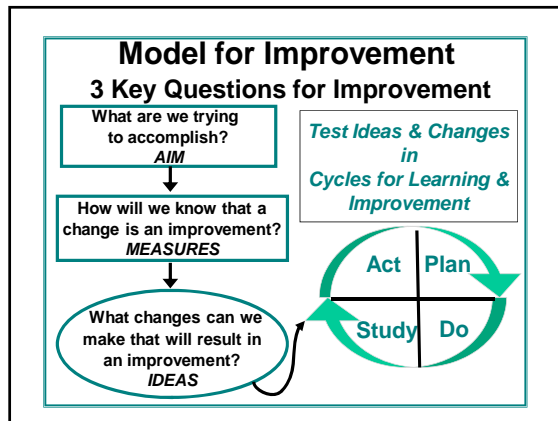
- Provide organizing structure to guide thinking
- Ensure discipline and thoughtfulness
- Support improvement principles
- Facilitate improvement
- Foster common language

Improvement Principles

- Listen to patients and families
- Tap knowledge of the system by involving staff
- Understand processes and interactions in system
- Use disciplined method in successive cycles to test changes

Improvement Principles

- **Test on small scale**
 - Move rapidly to improve
- **Measure to learn and to understand variation**



What Are We Trying to Accomplish?

- **AIM:**
 - A specific, measurable, time-sensitive statement of expected results of an improvement process
 - Gives direction
 - Intentional, deliberate, planned
 - Unambiguous, specific, concrete

What Are We Trying to Accomplish?

- Measurable with a numeric stretch goal to motivate significant improvement
- Aligned with other organizational goals or strategic initiatives
- Agreed upon and supported by those involved in the improvement and leaders

What Are We Trying to Accomplish?

- **Make your AIM actionable and useful**
- **Include:**
 - A general description of what you hope to accomplish
 - Specific patient population who will be the focus
 - Some guidance for carrying out the activities to achieve aim

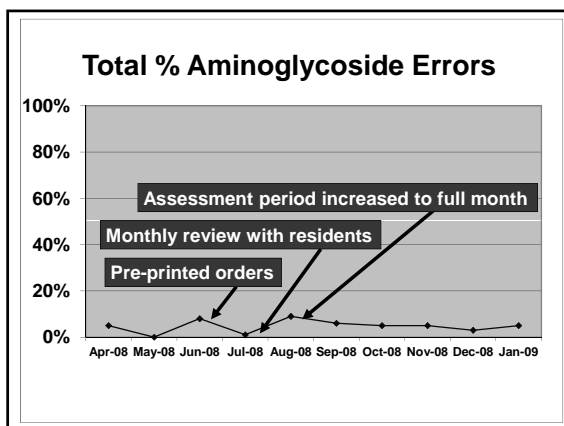
How Will We Know that a Change Is an Improvement?

- **Measures**
 - Measures are indicators of change
- **In improvement, key measures and measurement should:**
 - Clarify and be directly linked to goals
 - Seek usefulness over perfection

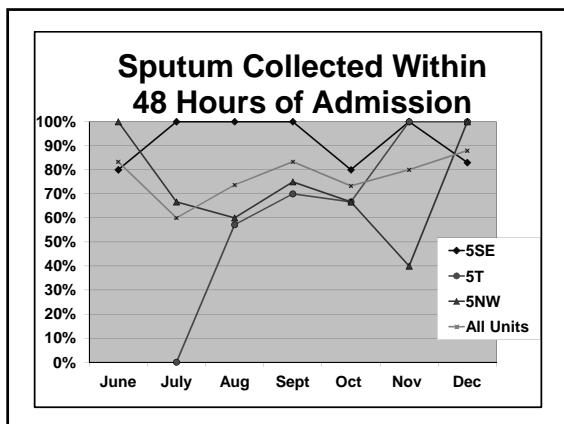
How Will We Know that a Change Is an Improvement?

- Be integrated into daily work whenever possible
- Be graphically and visibly displayed
- For PDSA cycles, be simple and feasible enough to accomplish in close time proximity to tests of change

Provider AIM:
 Decrease the incidence of IV vancomycin and aminoglycoside antibiotic dosing and prescription errors from 10% to 0% within 6 months



Nursing Plan:
 Increase percent of sputum collection within 48 hours of admission to 100% in 3 months



What Changes Can We Make that Will Result in an Improvement?

- Ideas for change or change concepts to be tested in a PDSA cycle can be derived from:
 - Evidence or results of research/science
 - Critical thinking or observation of the current system

What Changes Can We Make that Will Result in an Improvement?

- Creative thinking
- Theories, questions, hunches
- Extrapolations from other situations

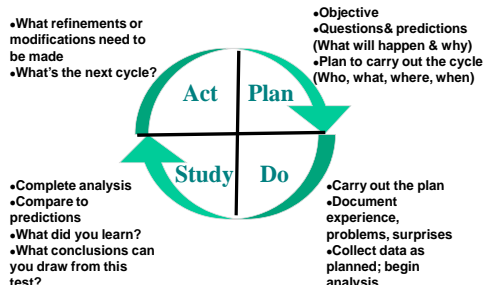
What Changes Can We Make that Will Result in an Improvement?

- Change concepts
- When selecting ideas to test, consider the following:
 - Direct link to the aim and goals
 - Likely impact of the change
 - Avoid low-impact changes
 - Potential for learning

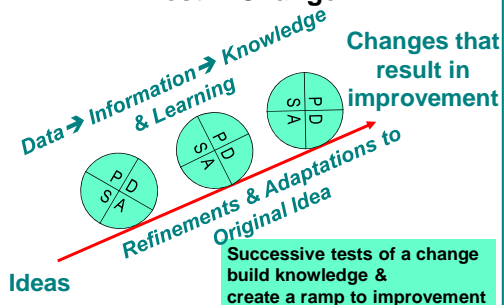
What Changes Can We Make that Will Result in an Improvement?

- Feasibility
- Logical sequencing
- Series of tests that will build on one another
- Scale of the test
 - 3 patients, NOT 30
- Shortness of the cycle
 - 1 week, NOT 1 month

Test Ideas & Changes in Cycles for Learning & Improvement



Repeated PDSA Cycles To Test A Change



PDSA Tips

- Keep it small – a cycle of 1 is enough
- Plan multiple cycles to test and adapt change
- Test with volunteers first
- Don't seek buy-in or consensus for the test
- Be innovative and flexible to make test feasible

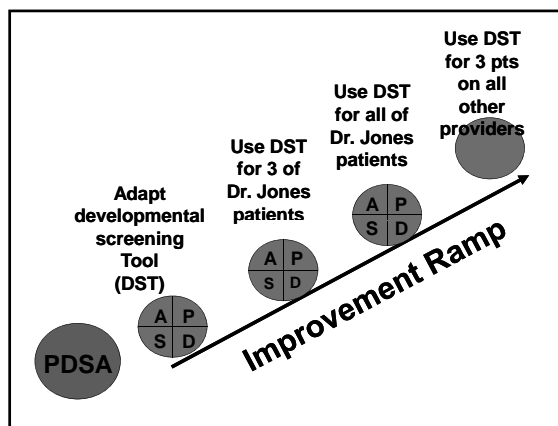
PDSA Tips

- **Collect useful (and only just enough) data during each test**
- **Test over a wide range of conditions**
- **Learn from failures as well as successes**
- **Communicate what you've learned**
- **Engage leadership support**

Time for Action

- **Plan specifics of use of the developmental screening tool**
 - **How are patients identified**
 - **Who places the form on the chart or creates the form in the EHR and when**
 - **Who completes the form and when**
 - **Who enters data and when**

| PLAN | DO | STUDY | ACT |
|--|--|--|---|
| 1. Team will huddle and identify all patients of Dr. Jones; 3 will be selected for forms 2. Olivia will place form (stored in wall storage beside charts) on those 3 charts or flag EMR on all patients 3. Angela will review questions with patients 4. Dr. Jones will complete chart 5. Marie will collect data report | 1. Form was difficult to manage on paper chart 2. Day was busy; flag was ignored on last patient and visit was lengthened | 1. What went well? Team huddle identified all patients; form was easy to use 2. What didn't go well? Form was lost in the shuffle of papers; flag was ignored 3. Surprises? Busy day; didn't expect to forget patients | 1. Continue huddle 2. Will adapt paper visit form to include developmental screening tools items. Dr. Jones will stay up and do this tonight. 3. Will place a reminder poster in triage to watch flags 4. Try again tomorrow |



Quality Improvement Success

- **High functioning team**
 - **Physician champion**
 - **Autonomous coordinator**
 - **Good communication**
 - **Patient care planning meetings**

Quality Improvement Success

- **Consistent care with daily improvement work**
 - **Consensus**
- **High expectations**
- **Early and aggressive therapy**
- **Engaged families who participate as leaders**

Quality Improvement Success

- **Data transparency and display**
- **Celebrate small successes and have fun!**